PERFORMANCE MONITORING, TRAINING AND ASSESSMENT PROGRAM OFFICE PMS 430

NDIA International Congress & Exhibition On Defense, Test, Evaluation and Acquisition: The Global Marketplace

Presented by:

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Integrated Performance Monitoring, Training and Assessment (PMTA)Strategy

Navy Training Problem

- **Separate and Diverse System Development Efforts Over Many Years**
  - **No Standards or Integrated Architecture**
  - **No Comprehensive Training Strategy**
- **Results:**
  - **Gaps in Training**
  - **Disparate Initial and Follow-on Training**
- **Complexity and Numbers of Systems Growing**
  - **Exacerbates Training Problems**

Background

- **1980's Movement To Reduce Shore Training Infrastructure and Move Training to Ships**
- **Many Pipeline Training Courses and Facilities Were Eliminated and Burden of Training Shifted to Ships**
- **Potential Mitigating Technologies:**
  - **Proliferation of LANs Aboard Ship**
  - **Digital Technologies in Combat Systems, Engineering Controls, Damage Control Systems, Information Systems**
  - **Improved Simulation/Stimulation of System Elements**

PMTA Concept

- **A Single Integrated System Using Open Architecture Simulators/Stimulators**
- **Linking Combat System, Damage Control, Engineering Control, HM&E, and Information Systems**
- **Providing Training, Performance Monitoring and Readiness Assessment Tools**
- **Employing Modeling and Simulation, Common Scenario Generation Engine, Advanced Stimulation Technology and Data Collection/ Analysis Functions**

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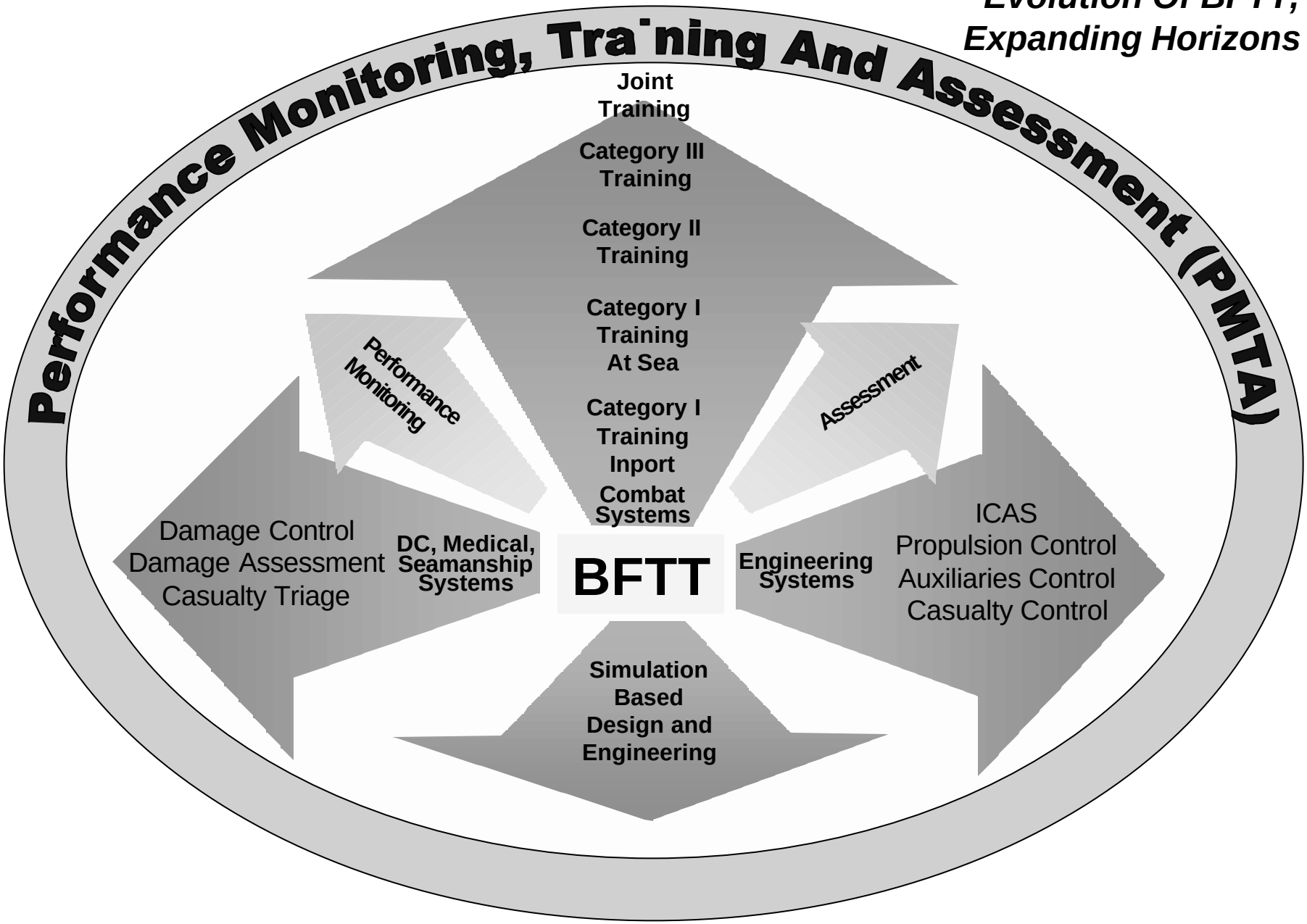
Evolution Of BFTT, Expanding Horizons



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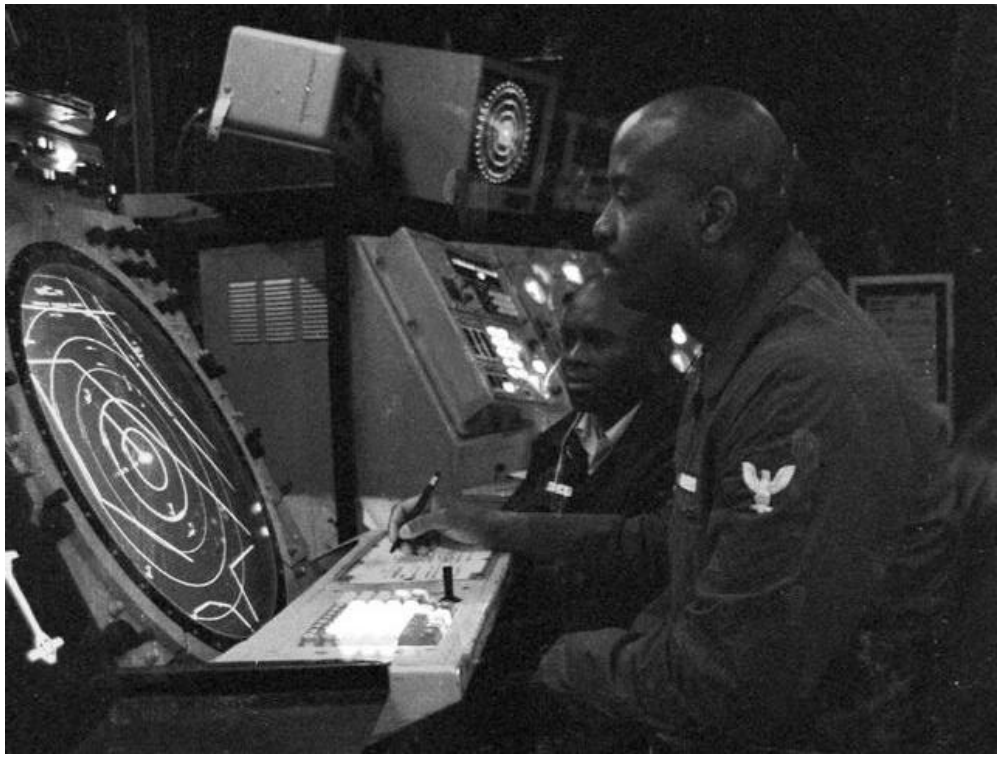
Benefits Of Integrated PMTA System

- **Standardization of System Interfaces**
- **Improved Interoperability of Shipboard Systems**
- **Integrated Ship-Wide Training Capability**
- **Adherence to DoD Mandated HLA Architecture**
- **Near Real-Time Capabilities to Assess Equipment Readiness, Training Readiness, and Operational Readiness**
- **Potential Use In Validation of Doctrine and Tactics**

BFTT Concept



"BFTT wraps around the combat system presenting it with a single coordinated training scenario. Ship combat system teams may train independently or as a Battle Group, using the same equipment they will use to fight.

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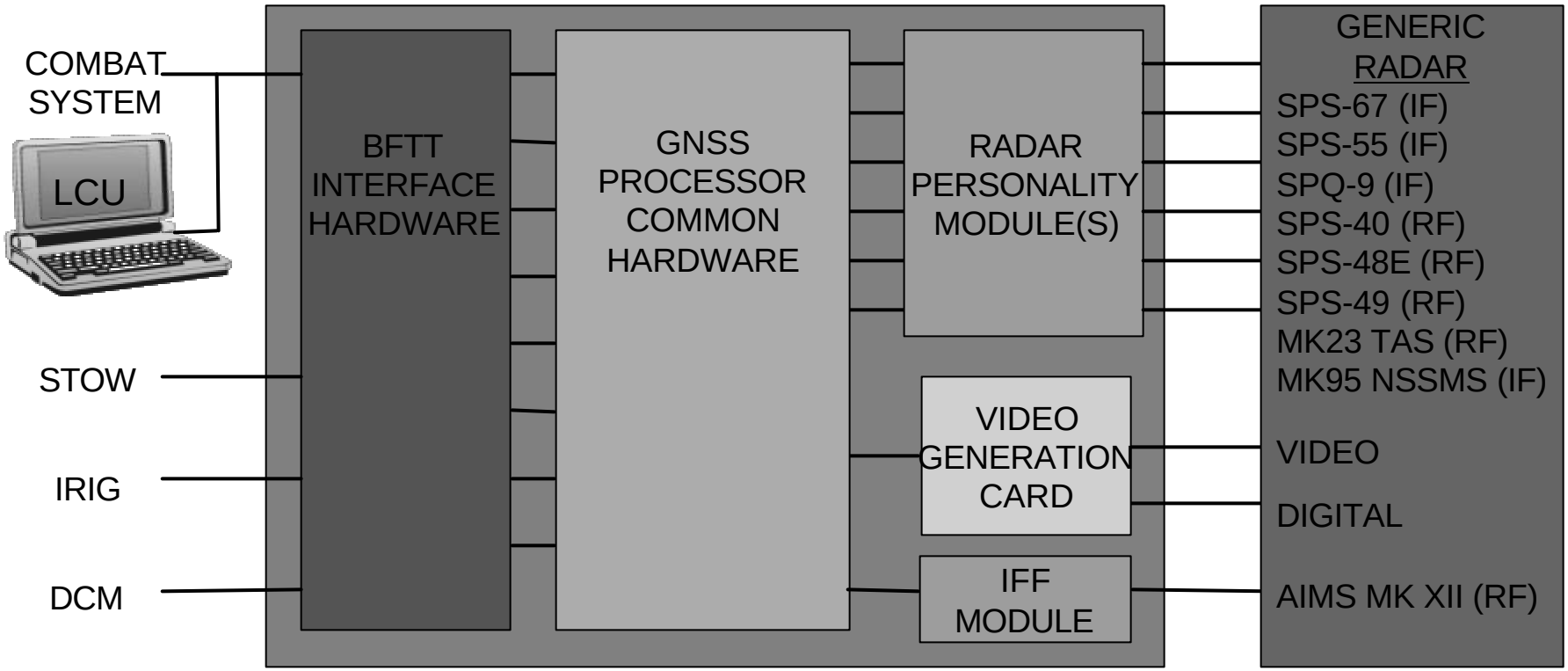
Generic Stimulator/Simulator (GNSS)

- **Common Architecture Approach for All Radars**
- **Personality Module Addresses Radar Specific Parameters**
- **Applications:**
  - **Ships, Shore-Based Trainers, Test Labs, Aircraft (USN & USMC)**



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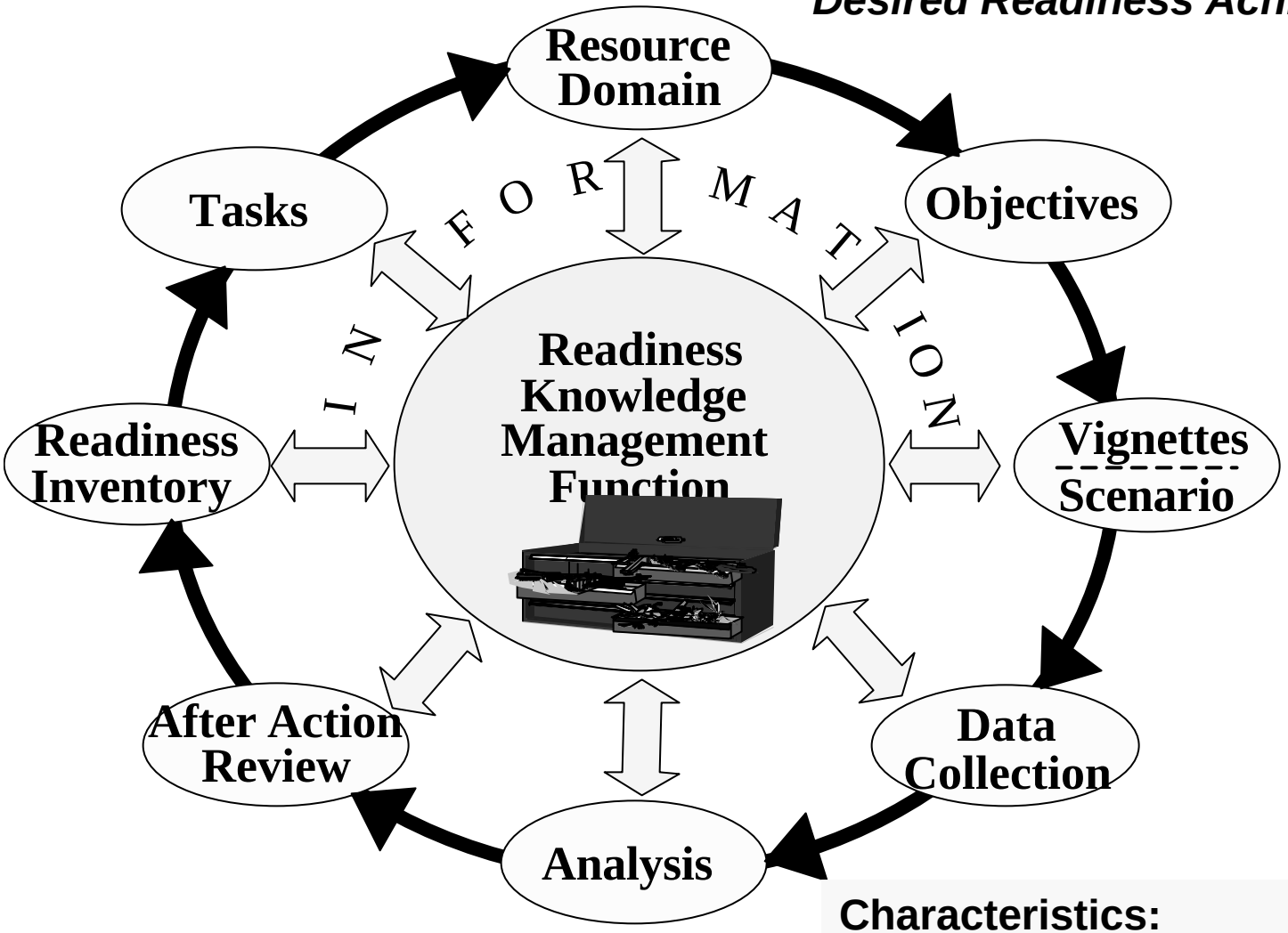
Desired Readiness Achievement Process



Characteristics:

- **Non-Linear, parallel**
- **Information available at all points in cycle**

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Readiness Management End Goal

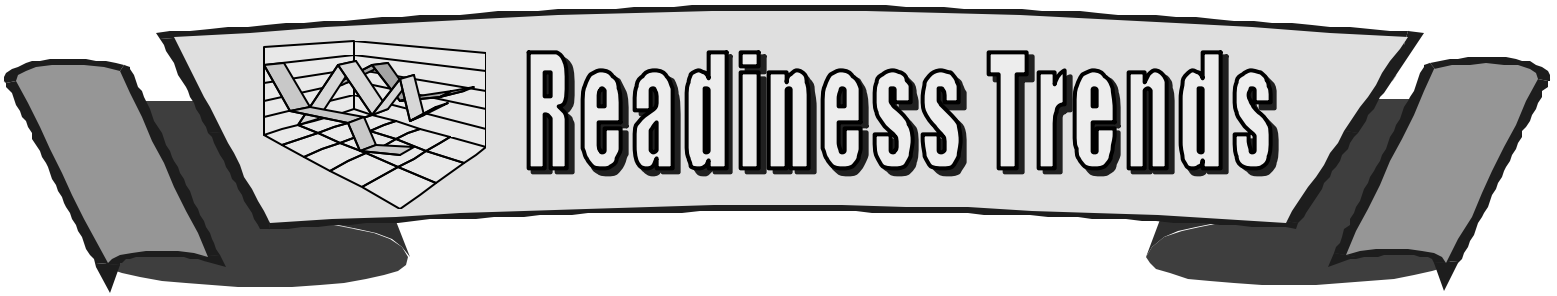
$$\text{Readiness} = \int_{t_1}^{t_2} (T_C, M_O)$$

T_C = Team Competencies (Knowledge and Skills)

☛ *Training*

M_C = Material Operability (Engineered Performance)

☛ *Testing*



Integrated over time, no longer a snapshot!

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How Is PMS430 Planning to Support This Process?

- Performance Monitoring, Training and Assessment (PMTA) System
  - Integration of BFTT, GNSS, BEWT, AMN, ATEAMS, and other initiatives, with emerging engineering and damage control training systems
  - Brings capability to provide ship-wide coordinated training, equipment and crew performance monitoring, and assessment of training and equipment readiness
  - Provides ability to quantify readiness based on performance of equipment and crew directly related to NMETs
  - Supplies tools to measure readiness on a continual basis, enabling trend analysis, identification of causes, and remediation of problem areas in near-real time

Supports both legs of the Readiness Management process - Team Competence and Material Operability